FRONT PAGE TITLE

Group 2

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Link to GitHub: WAASE Team 2

Link to running version:

Character & Word Count: (xxx)

Table of Contents

1. Project Introduction

Brief Introduction to what this project is about. The purpose of the introduction is to enable a peer to understand the rest of the report. For you as a student, a "peer" is another student at the same level, but who does know the project

1.1 Software Development Framework

Plan how you will use Scrum & XP?

1.2 Description of the System

The system will feature the implementation of API protocols to allow a wireless connection between a web interface, a MySQL server and an external device. The user will be able to access a personal folder on a server through a web interface; the data stored on the server will then be displayed through a unique access point from an external device.

Current system

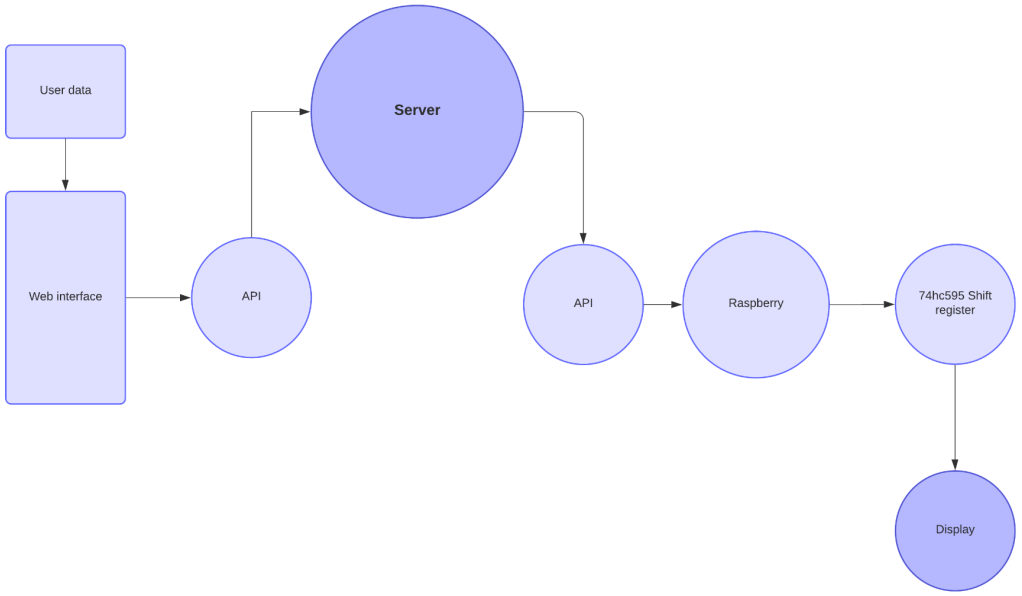

Figure 1 - DFD Diagram (Current System)

1.3 Description of the technologies

What is the company's/your hope with this system (*what the vision for the system or what value is it your system should add to their business)*

1.3.1 Python 3 / Raspberry Pi

The reason why we are using raspberry pi is because it's a cheap, simple and portable tool to build our hardware project.

1.3.2 MySQL and Azure

For this project we will require a database and for it we will use MySQL and Microsoft Azure. MySQL was chosen because it can be easily connected to Python and Azure allows all group-members to collaborate simultaneously through a cloud-based database.

Below is the first preliminary version of the database visualized as an ERD diagram.

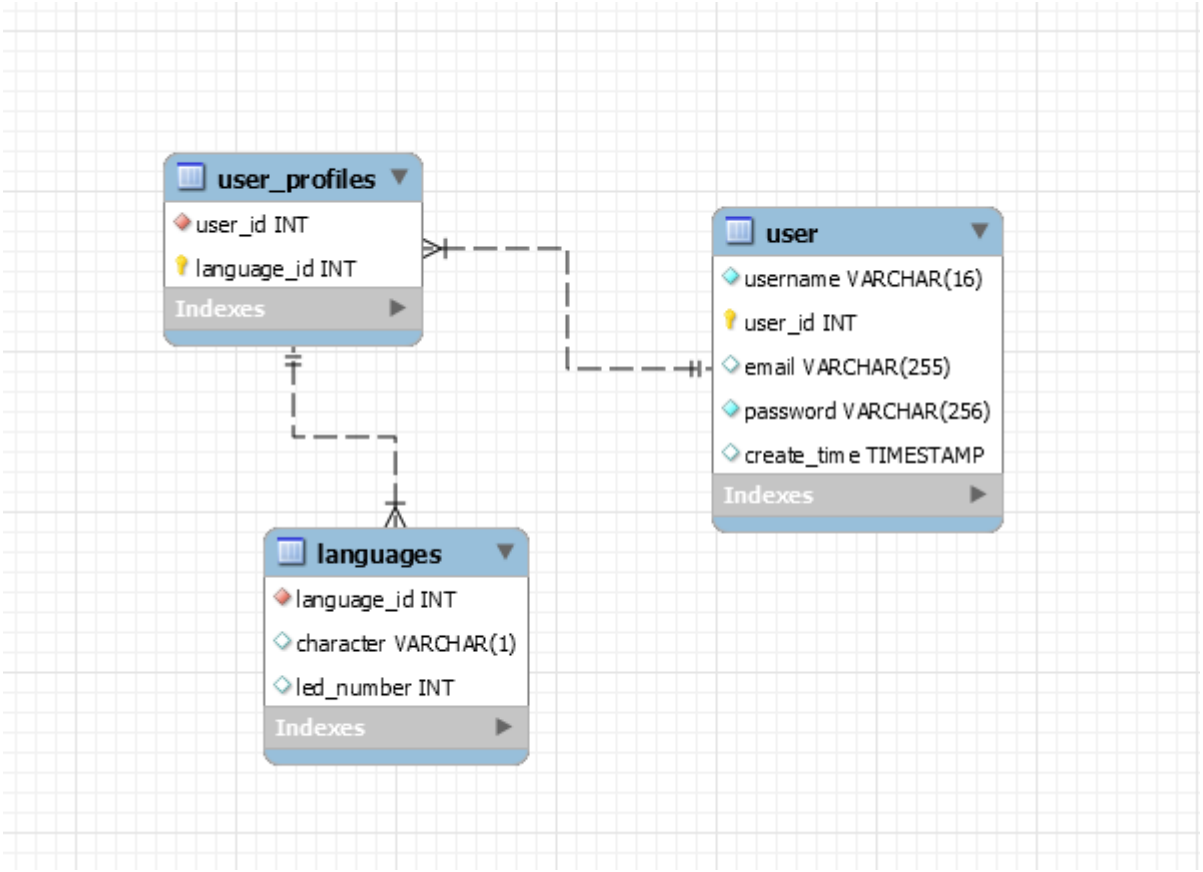

Figure 2 - ERD Diagram (Version 1.0)

1.3.3 Flask API

Flask is used to connect python code to a web interface in order to set up the product.

1.3.4 HTML 5

HTML will be used as an interface to create an account for it, to be able to use the product and later for setting up and choosing how to use the product.

1.3.5 Hardware

- Can you describe what hardware things we will use?
- 74hc595 Shift register Electro-Mechanical components Led Light

2. Project Backlog

A little introduction, maybe.

2.1 User Stories

Scrum user-stories

- This section should describe the user-stories agreed with the product-owner. It is important for each user-story to:
    - How-to demo is described
    - That has been broken down into tasks
    - An estimate has been made
    - The individual story follows the INVEST principle
    - That it is clear how it adds value

1. As a User I want to be able to upload personal data and display them through raspberry pi wirelessly.
2. As a user I want the system to automatically update a given data value from the net.
3. As a user I want to be able to select a defined set of data to be displayed on the device.
4. As a user I want the device to display the data through an array of led lights.
5.

Sprint 1)

- Build a server
    - Design database (3-4 h 2 Assignee)
- Retrieve data from a server using Raspberry
    - Understanding the raspberry (4-5 h All Assignee)
    - Connect raspberry with an API (3h 1 Assignee)
- Upload data to a server through a web interface
    - Connect interface with API (3 h 2 Assignee)
- Report

- Documentation (1 h All Assignee)

2.2 Prioritize

2.3 Estimate top 4-10 User Stories

Special Circumstances

This section is used to describe special conditions used in the program. It can e.g. be:

- How to handle exceptions.
- How you have chosen to do user input validation.
- How to choose to create security in connection with login.
- What user types are selected in the database and how they are used in the code.
- … Other items.

Selected code examples

It is not certain that the teacher/censor will find all your *gold nuggets* in the code itself. Therefore, it is a good idea to pick out specific code snippets and display them here.

The examples given outside the *special conditions* section can be taken and illustrated with code directly in the report.

It will seem particularly convincing if the code you select is included as part of one of the sequence diagrams.

Status of implementation

This section should list how far one has come with the implementation.

I. Project Process

There must be a section where you describe your work process during the project period

II. The work process

This section should describe:

- What sprints there were and what user stories were worked on
    - Sprint 1
    - Sprint 2
    - Sprint 3
    - Sprint 4
    - 1. As a user I want to be able to upload personal data and display them through raspberry pi wirelessly.
    - 2. As a user I want the system to automatically update a given data value from the net.
    - 3. As a user I want to be able to select a defined set of data to be displayed on the device.
    - 4. As a user I want the device to display the data through an array of led lights.
- Who was the scrum master in which parts of the project period.
- An example of one of the PO meetings, what was planned on your part and how it went.
- How you held your daily standup meetings
    - 15-minute meetings discussing what to-do and what has been done from each group member, following a check-up of the tasks on our scrum-esque zenhub board.
- When in held retrospectives

III. The work process reflected

This section should describe your reflections on which parts have worked well and which parts may have fallen slightly on the floor. You can e.g. describe:

- Whether the scrummaster role worked, what problems you saw in it, and what you did to fix it.
- What were the main topics at your retrospective meetings?
- If you had problems breaking down user stories into tasks.
- Whether you were spot-on with your estimates.
- Whether there were problems with the guidance and the PO meetings.
- How far into the process you found a rhythm that was productive.
- Other elements that have to do with trying to work in a scrum team.